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Hans-Christian Swoboda

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EXAMINER

OLSEN, LIN B

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/520,604	Applicant(s) SWOBODA ET AL.	
	Examiner LIN B. OLSEN	Art Unit 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9,10,12-19 and 21-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9,10,12-19 and 21-24 is/are rejected.
- 7) ☐ Claim(s) 18 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 June 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: The signed Oath or Declaration filed September 26, 2005 is not in the file.

Claim Objections

Claims 18 and 19 are objected to because of the following informalities:

Claim **18** includes in the 4th line of the claim, the construction “being about output”. This phrase is not understood, and the Examiner suggests the applicant intended to delete “about” as was done in claim 16.

Claim **19** includes in the 1st line of the claim, the construction “in one of claims 18”. This phrase is not understood, and the Examiner suggests the applicant intended to delete “one of” as was done in claim 17.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9 and 14 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that claims 9 and 14 fail to correspond in scope with that which applicant(s) regard as the invention can be found in the reply filed November 10, 2008 on page 6. In that paper, applicant has stated that support for the portion of the claim "wherein the takeover prompt is further output when the driver overrides the distance and speed controller by depressing an accelerator" is found at page 2 lines 7-14 of the specification and this portion of the specification indicates that the invention is different from what is defined in the claim(s).

On page 1 lines 23-24 of the specification, the "takeover prompt" is defined as the portion of the adaptive distance and speed controller that notifies the operator that the vehicle has gotten critically close to a target object. While page 2 lines 7-8 states that "it is furthermore advantageous if the takeover prompt is also issued when the driver overrides the distance and speed control system", lines 11 -13 clarify that the takeover prompt is also activated and deactivated when the vehicle comes critically close to a target object and the driver is overriding the distance and speed control. Therefore, the claims' statement that "wherein the takeover prompt is further output when the driver overrides the distance and speed controller by depressing an accelerator" is broader than the specification because it can be interpreted to mean that the driver's depressing the accelerator causes the output of the takeover prompt irrespective of whether the vehicle has become critically close to a target object. The claim will be examined as if it stated "wherein the takeover prompt is further output

when the driver overrides the distance and speed controller by depressing the accelerator and the vehicle comes critically close to the target object.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 9, 10, 12-19, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Labuhn et al. (US 6,009,368) in view of Joyce et al. (US 6,560,525) and further in view of U.S. Patent Pub. No. 2002/0177935 to Winner et al. Labuhn is concerned with an adaptive cruise control that uses deceleration control to prevent a vehicle from violating a desired minimum distance from a preceding vehicle. Joyce is concerned with an adaptive cruise control using radar to measure the distance to a preceding vehicle and using displays and audio signals to indicate that a vehicle has violated a desired minimum distance. Winner is concerned with using an adaptive cruise control and a lane keeping control in the same vehicle.

With respect to **claim 9**, Labuhn discloses a method for notifying a driver of a motor vehicle equipped with an adaptive distance and speed controller, comprising: one of activating or deactivating a prompt which informs the driver that the vehicle is coming critically close to a target object (FIG. 4 and Column 8, lines 31-32, 36-43 and 52-53);

wherein the activation or deactivation of the prompt occurs (FIG. 4 and Column 8, lines 66-67 and Column 9, lines 1-2) as a function of at least one of:

i) a fixed minimum distance between a distance-controlled and speed- controlled vehicle and the target object (FIG. 4, block 411, where XM is the minimum inter-vehicle spacing as described in Column 7, line 23)

ii) a relative speed-dependent minimum distance of the distance-controlled and speed- controlled vehicle in relation to the target object (FIG. 4, block 411, where VR'TB is the relative speed-dependent minimum distance as described in Column 3, lines 54-56), and

iii) a maximum vehicle deceleration producible by the distance and speed controller (FIG. 4, block 423 where DMAX is represents a deceleration limit as described in Column 9, lines 53-62)

While Labuhn discloses displaying an appropriate driver alert, it fails to specify that the prompt is a takeover prompt. However, Joyce, in the same art, discloses a method for notifying a driver of a motor vehicle equipped with an adaptive distance and speed controller, operating to adjust vehicle speeds to maintain a headway distance between the vehicle and a target object, comprising a takeover prompt which informs the driver that the vehicle is coming critically close to a target object and is unable to slow down to perform its operation of maintaining a headway distance (Column 3, lines 15-33; Column 5, lines 11-20). It would have been obvious to one skilled in the art at the time the invention was made to combine the teachings of Joyce with the driver alert of Labuhn which is using an adaptive distance and speed controller in order to notify the driver to intervene to avoid a possibility of a collision due to the capacity/limit of the

Art Unit: 3661

adaptive distance and speed controller during driving of the vehicle (Column 3, lines 5-10). Such combination would involve using a known technique to improve similar devices to yield the predictable result of an informed operator. For the purposes of the OA, the above mentioned explanation of the "prompt" as taught by Joyce will apply to all occurrences of the phrase "takeover prompt" throughout claims 10-12, 14-16, 18, 20 and 21.

“And wherein the takeover prompt is further output when the driver overrides the distance and speed controller by depressing an accelerator. – Neither Labuhn nor Joyce discusses the method’s action when the driver overrides the controller by accelerating, but Winner, mentions that the system emits a collision warning in any case if the radar system ascertains a dangerous approach to an obstacle (Para. 30). Further, in para.36, Winner reveals that the driver accelerating the vehicle does not deactivate the regulating system, but only prevents it from regulating the speed. Hence the regulating system still emits the takeover prompt even though the driver is depressing the accelerator. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the prior art elements of notifying the driver according to the established sequence of Labuhn/Joyce when the driver accelerates the vehicle to yield the predictable result that the driver is notified of the impending short distance and expects the deceleration of the regulation to kick in when the acceleration ceases.

With respect to **claim 10**, Labuhn discloses the prompt is at least one of: a visual display in a field of view of the driver, and an acoustic signal in an interior of the

Art Unit: 3661

vehicle (Column 3, lines 63-65, Column 4, lines 2-7). See paragraph 2a above. Labuhn does not explicitly disclose the display is in a field of view of the driver and an acoustic signal is in an interior of the vehicle. However, it is well known that the vehicle instrument cluster or other display panel is in the field of view of the driver and/or audible alerting apparatus for operator is an acoustic signal in an interior of the vehicle as the operator is inside of the vehicle while operating the vehicle (Column 3, lines 63-64, Column 4, lines 5-7).

With respect to **claim 12**, Labuhn discloses activation thresholds and deactivation thresholds of the prompt are not identical (FIG. 4, Column 8, lines 18-31). See paragraph 2a above.

With respect to **claim 13**, Labuhn discloses the distance and speed controller emits and receives radar signals, with the aid of which preceding vehicles can be recognized as target objects (Column 1, lines 27-29, Column 3, lines 50-57).

With respect to **claim 14**, Labuhn discloses a device for the distance and speed control of a motor vehicle (Column 2, lines 62-64 and Column 3, lines 10-12, 50-54), comprising:

an arrangement which outputs a prompt, informing a driver that the vehicle is coming critically close to a target object (FIG. 4 and Column 8, lines 31-32, 36-43 and 52-53), the arrangement being configured so that activation and deactivation of the

Art Unit: 3661

takeover prompt occurs (FIG. 4 and Column 8, lines 66-67 and Column 9, lines 1-2) as a function at least one of:

i) a fixed minimum distance between the distance- and speed-controlled vehicle and the target object (FIG. 4, block 411, where XM is the minimum inter-vehicle spacing as described in Column 7, line 23),

ii) a relative speed-dependent minimum distance between the distance- and speed- controlled vehicle and the target object (FIG. 4, block 411, where VR'TB is the relative speed-dependent minimum distance as described in Column 3, lines 54-56), and

iii) a maximum vehicle deceleration producible by the distance and speed controller (FIG. 4, block 423 where DMAX is represents a deceleration limit as described in Column 9, lines 53-62). See paragraph 2a above.

wherein the takeover prompt is further output when the driver overrides the distance and speed controller by depressing an accelerator. – (Winner, mentions that the system emits a collision warning in any case if the radar system ascertains a dangerous approach to an obstacle (Para. 30). Further, in para.36, Winner reveals that the driver accelerating the vehicle does not deactivate the regulating system, but only prevents it from regulating the speed. Hence the regulating system still emits the takeover prompt even though the driver is depressing the accelerator. See discussion with respect to claim 9)

With respect to **claim 15**, Labuhn discloses a display device, the display device displaying the prompt in a field of view of the driver (Column 3, lines 63-65, Column 4, lines 2-7). See paragraph 2a above. Labuhn does not explicitly disclose the display device is in a field of view of the driver. However, it is well known that the vehicle instrument cluster or other display panel visual and/or audible alerting apparatus for operator interfacing provides visual display in a field of view of the driver as the operator is inside of the vehicle while operating the vehicle (Column 3, lines 63-64, Column 4, lines 5-7).

With respect to **claim 16**, Labuhn discloses an acoustic device, the prompt being output as an acoustic signal by the acoustic device in an interior of the vehicle (Column 3, lines 63-65, Column 4, lines 2-7). See paragraph 2a above. Labuhn does not explicitly disclose the acoustic device is in an interior of the vehicle. However, it is well known that the vehicle instrument cluster or other display panel visual and/or audible alerting apparatus for operator interfacing provides an acoustic signal in an interior of the vehicle as the operator is inside of the vehicle while operating the vehicle (Column 3, lines 63-64, Column 4, lines 5-7).

With respect to **claim 17**, Labuhn discloses a radar device, the radar device configured to emit and receive radar signals so that a preceding vehicle can be recognized as a target object (Column 1, lines 27-29, Column 3, lines 50-57).

With respect to **claim 18**, Labuhn discloses a display device, the display device displaying the takeover prompt in a field of view of the driver; and an acoustic device, the takeover prompt being output as an acoustic signal by the acoustic device in an interior of the vehicle (See rejections of claims 15 and 16, above).

With respect to **claim 19**, Labuhn discloses a radar device, the radar device configured to emit and receive radar signals so that a preceding vehicle can be recognized as a target object (See rejection of claim 17, above).

With respect to **claim 21**, Labuhn discloses activation thresholds and deactivation thresholds of the prompt are not identical (See rejection of claim 12, above).

With respect to **claim 22**, Labuhn discloses the distance and speed controller emits and receives radar signals, with the aid of which preceding vehicles can be recognized as target objects (See rejection of claim 13, above).

With respect to **claim 23**, Labuhn discloses at least one of a display device, the display device displaying the prompt in a field of view of the driver, (Column 3, lines 63-65, Column 4, lines 2-7). (See discussion at claim 15 above) and , Labuhn discloses an acoustic device, the prompt being output as an acoustic signal by the acoustic device in

Art Unit: 3661

an interior of the vehicle; (Column 3, lines 63-65, Column 4, lines 2-7). See discussion at claim 16 above) and

Labuhn discloses a radar device, the radar device configured to emit and receive radar signals so that a preceding vehicle can be recognized as a target object; (Column 1, lines 27-29, Column 3, lines 50-57) (See discussion at claim 17 above).

Labuhn discloses activation thresholds and deactivation thresholds of the prompt are not identical (See rejection of claim 21, above). and

Labuhn discloses the distance and speed controller emits and receives radar signals, with the aid of which preceding vehicles can be recognized as target objects (See rejection of claim 22, above).

With respect to **claim 24**, Labuhn discloses the prompt is at least one of: a visual display in a field of view of the driver, and an acoustic signal in an interior of the vehicle (Column 3, lines 63-65, Column 4, lines 2-7) (See discussion at claim 10 above) and Labuhn discloses activation thresholds and deactivation thresholds of the prompt are not identical (FIG. 4, Column 8, lines 18-31) (See discussion at claim 12 above) and Labuhn discloses the distance and speed controller emits and receives radar signals, with the aid of which preceding vehicles can be recognized as target objects (Column 1, lines 27-29, Column 3, lines 50-57) (See discussion at claim 12 above).

Response to Arguments

4. Applicant's arguments with respect to claims 9-17 have been considered but are moot in view of the new ground(s) of rejection.

5. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the combination of the teachings of Labuhn, Joyce and Winner would have been obvious to one skilled in the art at the time the invention was made since Labuhn teaches that a driver alert is set when a vehicle is closing on the preceding vehicle (See rejection of claim 9, above) and it was known in the art that the prompt as taught by Labuhn will alert/caution the driver to takeover, and is explicitly disclosed by Joyce (See rejection of claim 9), since the maximum deceleration achievable by the adaptive system has been reached and more braking will be required to avoid a collision/coming too close to the preceding vehicle. Similarly, since the cruise control is not disengaged by driver's acceleration, it would be consistent to have the ACC and collision protection not disengage because of the driver's acceleration.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LIN B. OLSEN whose telephone number is (571)272-9754. The examiner can normally be reached on Mon - Fri, 8:30 -5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lin B Olsen/
Examiner, Art Unit 3661

/Thomas G. Black/
Supervisory Patent Examiner, Art Unit 3661